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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,378	11/21/2001	Mark W. Miles	01568-006003	4461

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EXAMINER

PIZIALI, JEFFREY J

ART UNIT PAPER NUMBER

2629

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,378

Applicant(s)

MILES, MARK W.

Examiner

Jeff Piziali

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20,25,26,28,32,33 and 40-85 is/are pending in the application.
- 4a) Of the above claim(s) 20,25,26,28,32,33,40-54,59-61,63,68,69 and 72-85 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 55-58,62,64-67,70 and 71 is/are rejected.
- 7) ☒ Claim(s) 64 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/28/06 & 5/19/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species IV (i.e. Claims 55-58, 62, 64-67, 70, and 71) in the reply filed on 11 September 2006 (as well as 16 May 2006) is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 20, 25, 26, 28, 32, 33, 40-54, 59-61, 63, 68, 69, and 72-85, withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11 September 2006.

Drawings

3. The drawings were received on 19 February 2002. These drawings are acceptable.

Claim Objections

4. Claim 64 is objected to because of the following informalities: The potential claim 63 dependency should be deleted from the claim language, because claim 63 has been withdrawn. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 55-58, 62, 64-67, 70, and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMond et al. (US 5,079,544 A) in view of Cordova, Jr. (US 5,526,327 A).

Note: Claim order has been rearranged below to better reflect claim dependencies.

Regarding claim 65, DeMond discloses a method for use with a product [Fig. 1a; 75] that includes a surface [Fig. 1c & 1d; 34] that is exposed for viewing by a user when the product is in use, the surface including an electronically controllable active display area [Fig. 1c & 1d; 32] that includes an array [Fig. 1a; 16] of interference modulators of light on the surface, the display area providing an image at the surface, the method comprising: enabling the display area to impart different selectable appearances to the surface that are noticeable to the user, and selecting one of the appearances to reflect a state of use of the product (see Column 7, Lines 1-50).

Although DeMond's video system [Fig. 1a; 75] itself arguably constitutes a "product" as instantly claimed, DeMond does not expressly teach integrating the video system into another product. However, Cordova teaches integrating a display system into a truck product (see Fig. 7; Column 7, Lines 23-58).

DeMond and Cordova are analogous art, because they are from the shared inventive field of display devices for consumer products. Although Cordova neglects to explicitly mention

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using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see Column 8, Lines 9-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use DeMond's electronically controllable active display area as Cordova's display array, so as to provide a large display array with reduced speckle within a commercially popular consumer product.

Regarding claim 66, this claim is rejected by the reasoning applied in rejecting claim 65; furthermore, DeMond discloses product [Fig. 1a; 75] comprising a housing [Fig. 1a; 1] having a surface [Fig. 1c & 1d; 34] that is exposed for viewing by a user when the product is in use, an electronically controllable active display area [Fig. 1c & 1d; 32] on the surface, the display area including an array [Fig. 1a; 16] of interference modulators of light on the surface, the display area providing an image at the surface, the display area being capable of effecting different selectable appearances to the surface that are noticeable to the user, and a controller [Fig. 3; 154] having a port [Fig. 3; 162] for receiving information defining the different selectable appearances from an external source (see Column 10, Line 20 - Column 11, Line 57), the controller being connected to the display area for selecting one of the appearances for display and for causing the selected appearances to be displayed to the user (see Column 7, Lines 1-50).

Although DeMond's video system [Fig. 1a; 75] itself arguably constitutes a "product" as instantly claimed, DeMond does not expressly teach integrating the video system into another product. However, Cordova teaches integrating a display system into a truck product (see Fig. 7; Column 7, Lines 23-58).

DeMond and Cordova are analogous art, because they are from the shared inventive field of display devices for consumer products. Although Cordova neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see Column 8, Lines 9-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use DeMond's electronically controllable active display area as Cordova's display array, so as to provide a large display array with reduced speckle within a commercially popular consumer product.

Regarding claim 64, DeMond discloses one portion of the surface comprises a separate component [Fig. 1c & 1d; 32] incorporated with the housing and in which the active display area is on the separate component (see Column 7, Lines 1-50).

Regarding claim 67, this claim is rejected by the reasoning applied in rejecting claims 65 and 66; furthermore, DeMond discloses an object whose surface [Fig. 1c & 1d; 34] is modulated by virtue of the fabrication of an array of interferometric modulation elements [Fig. 1c & 1d; 32] on its surface (see Column 7, Lines 1-50).

Although DeMond's video system [Fig. 1a; 75] itself arguably constitutes an "object" as instantly claimed, DeMond does not expressly teach integrating the video system into another object. However, Cordova teaches integrating a display system into a truck object (see Fig. 7; Column 7, Lines 23-58).

DeMond and Cordova are analogous art, because they are from the shared inventive field of display devices for consumer products. Although Cordova neglects to explicitly mention

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using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see Column 8, Lines 9-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use DeMond's electronically controllable active display area as Cordova's display array, so as to provide a large display array with reduced speckle within a commercially popular object.

Regarding claim 71, this claim is rejected by the reasoning applied in rejecting claims 65, 66, and 67; furthermore, DeMond discloses a method of or use with a product [Fig. 1a; 75] that includes an array [Fig. 1a; 16] of interference modulators of light [Fig. 1c & 1d; 32] on a surface [Fig. 1c & 1d; 34] of the product, the method comprising causing the product to perform a non-data processing operation or to be subjected to a non-data processing use by a user, the non-data processing operation or use having a condition that changes in the course of the operation or use (see Column 10, Line 20 - Column 11, Line 57), detecting the occurrence of a change in the condition, in response to the occurrence of the change in condition, selecting one of at least two different overall product appearances to indicate the occurrence to the user, and controlling the array of interference modulators to impart the selected overall product appearance to the product (see Column 7, Lines 1-50).

Although DeMond's video system [Fig. 1a; 75] itself arguably constitutes a "product" as instantly claimed, DeMond does not expressly teach integrating the video system into another product. However, Cordova teaches integrating a display system into a truck product (see Fig. 7; Column 7, Lines 23-58).

DeMond and Cordova are analogous art, because they are from the shared inventive field of display devices for consumer products. Although Cordova neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see Column 8, Lines 9-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use DeMond's electronically controllable active display area as Cordova's display array, so as to provide a large display array with reduced speckle within a commercially popular consumer product.

Regarding claim 55, DeMond discloses the array spans a substantial portion of the surface (see Fig. 1a).

Regarding claim 56, DeMond discloses the appearances include decorative images (see Column 2, Lines 5-15).

Regarding claim 57, DeMond discloses the appearances include areas of variable color and/or brightness (see Column 9, Lines 8-17).

Regarding claim 58, DeMond discloses an interface [Fig. 3; 154] that enables the user to determine which of the appearances is selected (see Column 10, Line 20 - Column 11, Line 57).

Regarding claim 62, Cordova discloses the surface comprises a surface of a motor vehicle (see Fig. 7).

Regarding claim 70, DeMond discloses the appearance comprises iridescence (see Fig. 4; Column 11, Line 58 - Column 12, Line 5).

Response to Arguments

7. Applicant's arguments with respect to claims 55-58, 62, 64-67, 70, and 71 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeff Piziali
27 November 2006